

Amendments to the Specification:

Please amend the Abstract to the following:

A method and structure for the distribution and utilization of synchronization within an asynchronous network is described herein. Synchronization is distributed through an asynchronous network via a synchronization symbol periodically inserted on the MAC layer. The priority of this symbol ensures that this symbol is inserted in the MAC layer data stream ahead of all other types of symbols. The insertion of the synchronization symbol in the middle of an ongoing data frame is supported. In addition, a method for synchronization symbol distribution throughout an asynchronous network is presented, along with a method for switching to a new synchronization path (in the event of loss of original synchronization path) based on minimum number of hops from the synchronization source. In addition, a method is described for utilization of the count and interval of received synchronization symbols and the count and interval of transmitted synchronization symbols to generate an error correction signal used in the process of frequency locking of a device's internal hardware to received synchronization symbols from another device. Using the prioritized insertion capability required for synchronization symbols, a variety of other MAC layer control symbols are defined to perform other functions, such as propagation time measurement between adjacent nodes.

Please replace the paragraph at p. 6, line 18 with the following:

The purpose of the virtual network is to deliver data from a variety of different kinds of external interfaces to corresponding compatible external interfaces elsewhere in the network. Each data packet originating at any device is multiplexed onto and transported on LMAC-compatible links until it reaches its destination, at which point it is removed from the virtual network and sent out the corresponding egress external interface. Fig. 1 shows examples of two

different virtual network bi-directional ring topologies, one for a SONET ring (Fig. 1A) and the other for an asynchronous LMAC-based ring (Fig. 1B). The thick arrows show representative interfaces to the virtual network from outside the virtual network. These interfaces include synchronous/plesiochronous framed data interfaces such as DS1 and asynchronous connectionless packetized data interfaces such as Fast Ethernet (100BaseT). In addition, there is an external interface to the synchronization source device 22 from an external synchronization source. This interface may be a synchronous framed data interface such as a DS1, or may be a higher-speed synchronous data interface such as an OC-12. The lines interconnecting devices in the virtual network have the synchronous SONET framing format in the SONET ring, and are all LMAC-compatible in the asynchronous ring. The boldface lines indicate external interfaces of the virtual network and connections from devices within the virtual network to devices outside the virtual network. Dotted lines (whether in boldface or not) show representative synchronization distribution paths within the overall network. Dotted lines not in boldface show representative synchronization distribution paths from device 22 to the other devices in the virtual network. The representative external devices 23 and 24 attached to device 20 and to device 22 that generate a DS1 transported from device 20 to device 22 and vice versa are both line-timed off of the virtual network, and hence are connected to the virtual network with dotted lines. Line-timing is described in the book "SONET", incorporated earlier in this specification by reference in its entirety. The use of line-timing in this fashion is one way to provide uniform clocking to devices at the endpoints of a DS1.